April 23, 2003

RE: ***ALPHA SYSTEMS 039-16042-00304***
TO: Interested Parties / Applicant
FROM: *Paul Dubenetzky*
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) the date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for consideration at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosure

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

(317) 232-8603
(800) 451-6027
www.state.in.us/idem

April 23, 2003

Mr. David Smith
Alpha Systems, Inc.
5120 Beck Drive
Elkhart, Indiana 46516

Re: 039-16042-00504
First Minor Source Modification to:
Part 70 permit No.: T039-12831-00504

Dear Mr. Smith:

Alpha Systems, Inc. was issued a Part 70 operating permit T039-12831-00504 on March 22, 2002 for a fiberglass molds and plastic/vacuum formed items manufacturing operation. An application to modify the source was received on September 3, 2002. Pursuant to 326 IAC 2-7-10.5, the following emission units are approved for construction at the source (new units shown in bold):

5100 Beck Drive Building

(e) One (1) flat sheet open molding line, identified as FS1 which has a rated capacity of 3,000 lb/hr. This facility is used to manufacture flat strips to match the counter tops in line C1. From this process, the flat strip is conveyed to the sawing and sanding operation, identified as S1 including various already permitted sanders and two (2) flat top sanders designated as FS-1 **and** FS-2**, one (1) two head and one (1) four head spec sheet belt sanders designated as FS-3 and FS-4** for finishing as a final product. This operation is capable of sawing and sanding 1614 pounds per hour of product.

One (1) 50,000 CFM pulse jet baghouse dust collection system, identified as DC-1 used to control the particulate matter (PM) emissions coming from facility S1.

(h) One (1) 300 gallon mix tank, designed as MT-1, with a maximum capacity of 2,500 pounds per hour and exhausting into the building.

(~~h~~**i**) **Three (3)** ~~Two (2)~~ manual mixer**s**, designed as MM-1~~, and~~ MM-2, **and MM-3,** with a maximum capacity of 430 lbs each and exhausts into the building.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

This minor source modification authorizes construction of the new emission units. Operating conditions shall be incorporated into the Part 70 operating permit as a significant permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Mike Pring, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919)468-7840 to speak directly to Mr. Pring. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,
Original signed by
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

ERG/MP

cc: File - Elkhart County
Elkhart County Health Department
Northern Regional Office - Terry Coleman
Air Compliance Section Inspector - Paul Karkiewicz
Compliance Data Section - Karen Nowak
Administrative and Development - Sara Cloe
Technical Support and Modeling - Michele Boner

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Frank O'Bannon
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PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

Alpha Systems, Inc.
5100 Beck Drive,
5120 Beck Drive, and
21680 Protecta Drive
Elkhart, Indiana 46516

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

First Significant Source Modification No.: 039-16042-00504	
Issued by: **Original signed by** Paul Dubenetzky Branch Chief, Office of Air Quality	Date Issued: **April 23, 2003**

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates two (2) plants on Beck Drive which manufacture adhesives, fiberglass counter tops, and sinks, and one (1) plant on Protecta Drive Plant which manufactures fiberglass molds and plastic/vacuum formed items.

Responsible Official:	David V. Smith, Jr.
Source Address:	5100 Beck Drive, Elkhart, Indiana 46516 5120 Beck Drive, Elkhart, Indiana 46516 21680 Protecta Drive, Elkhart, Indiana 46516
Mailing Address:	5120 Beck Drive, Elkhart, Indiana 46516
SIC Code:	2189, 3088
County Location:	Elkhart
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act

A.2 Part 70 Source Definition [326 IAC 2-7-1(22)]

This adhesive, sink and countertop manufacturing operation consists of three (3) plants:

(a) Beck Drive Plant located at 5120 and 5100 Beck Drive, Elkhart, Indiana 46516; and

(b) Protecta Drive Plant, located at 21680 Protecta Drive, Elkhart, Indiana 46516.

The three (3) plants are owned by one (1) company, located on the same property (contiguous or adjacent property) but have different SIC codes: The 5120 Beck Drive Plants manufactures adhesives, the 5100 Beck Drive plant manufactures counter tops, and sinks, used by the Recreational Vehicle industry, with an SIC code of 2891. The Protecta Drive Plant manufactures fiberglass molds and plastic/vacuum formed items, with an SIC code of 3088. This determination was previously made in Minor Permit Revision No. 039-11874-00504 (to MSOP No. 039-11066-00504), issued on March 30, 2000.

A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

5120 Beck Drive Building

(a) One (1) existing mix tank, used in the solvent-based adhesives production area, designated as M-1, maximum capacity of 500 gallons, with filling, dispersion, and cleanup operations all venting to stack V1.

(b) One (1) existing mix tank, used in the solvent-based adhesive production area, designated as M-2, maximum capacity of 400 gallons, with filling, dispersion, and cleanup operations all venting to stack V1.

(c) One (1) mix tank, used in the solvent-based adhesive production area, designated as M-3, with a maximum capacity of 300 gallons, with filling, dispersion, and cleanup operations all venting to stack V1.

5100 Beck Drive Building

(d) One (1) stone mixer, identified as M1 which has a rated capacity of 2,219 pounds per hour (lb/hr). This mixer can only feed one (1) line at a time, either the flat sheet molding line, FS1 or the sink/counter top molding, C1.

(e) One (1) flat sheet cast polymer line, identified as FS1 which has a rated capacity of 3,000 lb/hr. This facility is used to manufacture flat strips to match the counter tops in line C1. From this process, the flat strip is conveyed to the sawing and sanding operation, identified as S1 including various already permitted sanders and two (2) flat top sanders designated as FS-1 and FS-2, one (1) two head and one (1) four head spec sheet belt sanders designated as FS-3 and FS-4 for finishing. This operation is capable of processing 3,000 pounds per hour of product.

One (1) 50,000 CFM pulse jet baghouse dust collection system, identified as DC-1 used to control the particulate matter (PM) emissions coming from facility FS1 through FS-4.

(f) One (1) sink/counter top cast polymer line, identified as C1 which is capable of molding 34 parts per hour. From this process, the parts can be conveyed to an 0.8 million Btu/hr (MMBTU/hr) natural gas-fired dryer, identified D1 for drying as a final product.

(g) One (1) stone mixer, designed as SM-1B, with a maximum capacity of 1500 lbs/hr venting inside the building.

(h) One (1) 300 gallon mix tank, designed as MT-1, with a maximum capacity of 2,500 pounds per hour and venting inside the building.

(i) Three (3) manual mixers, designed as MM-1, MM-2, and MM-3, with a maximum capacity of 430 lbs each and venting inside the building.

(j) Miscellaneous use of solvents, waxes, cleaners and other VOC containing materials used to manufacture marble flat sinks and bowls.

(k) One (1) Empire Blast Cabinet used to clean maintenance tools, vented to a dust collector designed as DC-2 and then internally.

(l) Ten (10) hand grinders used for the final finish operations are vented to dust collectors, designated as DC-3 to DC-6 and then internally. This operation is capable of grinding 538 pounds per hour.

Protecta Drive Plant:

(m) One (1) mold booth, designated as #1, with a maximum throughout of 0.125 units per hour, consisting of gel coat and resin application, controlled by dry filters for particulate matter over spray and exhausts to one (1) stack designated as SV-001.

(n) One (1) glue line for polycarbonate skylights, with a maximum throughput of 37.7 units per hour and exhausts to the atmosphere.

A.4 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) One (1) woodworking and plastics machining area, with a maximum wood rate of 6.0 pounds per hour, a maximum plastic rate of 350.0 pounds per hour, exhausts to the atmosphere.(326 IAC 6-3-2)

(b) Four (4) organic storage tanks, designated as T1-T4, a maximum throughput of 140,000 gallons per year each, located above ground and exhausts to the atmosphere. Tanks designated as T1 and T2 are vertical fixed roof tanks. Tanks designated as T3 and T4 are flat top tanks. (326 IAC 8-9)

A.5 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION D.1 FACILITY OPERATION CONDITIONS

Description [326 IAC 2-7-5(15)]:

5120 Beck Drive Building

(a) One (1) existing mix tank, used in the solvent-based adhesives production area, designated as M-1, maximum capacity of 500 gallons, with filling, dispersion, and cleanup operations all venting to stack V1.

(b) One (1) existing mix tank, used in the solvent-based adhesive production area, designated as M-2, maximum capacity of 400 gallons, with filling, dispersion, and cleanup operations all venting to stack V1.

(c) One (1) mix tank, used in the solvent-based adhesive production area, designated as M-3, with a maximum capacity of 300 gallons, with filling, dispersion, and cleanup operations all venting to stack V1.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 VOC Limit [326 IAC 8-1-6] and Hazardous Air Pollutant (HAP) Limit [326 IAC 2-4.1]

(a) The input of raw VOC and/or HAP containing material to the three (3) mix tanks designated as M-1 through M-3 shall not exceed 1,664 tons per consecutive twelve (12) month period, with compliance demonstrated at the end of each month. Each ton of VOC and/or HAP containing cleanup solvent used at the three (3) mix tanks designated as M-1 through M-3 shall be considered equivalent to 66.7 tons of raw materials input to the coating production process.

(b) The maximum individual HAP content of any coating shall not exceed forty percent (40%), which will limit the potential to emit VOC and total HAPs from the three (3) mix tanks designated as M-1 through M-3 to less than 25 tons per year, and will limit the potential to emit each individual HAP to less than 10 tons per year. These limits are based on the AP-42 emission factor of 30 pounds of VOC per ton produced (AP-42, Chapter 6.4, Table 6.4-1). Therefore, the requirements of 326 IAC 2-4.1-1 (New Source toxics control) and 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) do not apply.

Compliance Determination Requirements

D.1.2 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP)

Compliance with Condition D.1.1 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound and HAP-containing material usage for the twelve (12) consecutive month period.

D.1.3 Record Keeping Requirements

(a) To document compliance with Conditions D.1.1 the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC and HAP usage limits and/or the VOC and HAP emission limits established in Condition D.1.1.

(1) The amount and VOC/HAP content of each coating produced and each solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) The volume weighted VOC/HAP content of the coatings produced for each month;

(3) The cleanup solvent usage for each month;

(4) The total VOC/HAP input for each month; and

(5) The weight of VOCs/HAPs emitted at the three (3) mixing tanks for each compliance period.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.4 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description:

5100 Beck Drive Building

(d) One (1) stone mixer, identified as M1 which has a rated capacity of 2,219 pounds per hour (lb/hr). This mixer can only feed one (1) line at a time, either the flat sheet molding line, FS1 or the sink/counter top molding, C1.

(e) One (1) flat sheet cast polymer line, identified as FS1 which has a rated capacity of 3,000 lb/hr. This facility is used to manufacture flat strips to match the counter tops in line C1. From this process, the flat strip is conveyed to the sawing and sanding operation, identified as S1 including various already permitted sanders and two (2) flat top sanders designated as FS-1 and FS-2, one (1) two head and one (1) four head spec sheet belt sanders designated as FS-3 and FS-4 for finishing as a final product. This operation is capable of sawing and sanding 1,614 pounds per hour of product.

One (1) 50,000 CFM pulse jet baghouse dust collection system, identified as DC-1 used to control the particulate matter (PM) emissions coming from facility S1.

(f) One (1) sink/counter top cast polymer line, identified as C1 which is capable of molding 34 parts per hour. From this process, the parts are conveyed to the 0.8 million Btu/hr (MMBTU/hr) natural gas-fired dryer, identified D1 for drying as a final product.

(g) One (1) stone mixer, designed as SM-1B, with a maximum capacity of 1500 lbs/hr and exhausts into the building.

(h) One (1) 300 gallon mix tank, designed as MT-1, with a maximum capacity of 2,500 pounds per hour and exhausting into the building.

(i) Three (3) manual mixers, designed as MM-1, MM-2, and MM-3, with a maximum capacity of 430 lbs each and venting inside the building.

(j) Miscellaneous use of solvents, waxes, cleaners and other VOC containing materials used to manufacture marble flat sinks and bowls.

(k) One (1) Empire Blast Cabinet used to clean maintenance tools, vented to a dust collector designed as DC-2 and then internally.

(l) Ten (10) hand grinders used for the final finish operations are vented to dust collectors, designated as DC-3 to DC-6 and then internally. This operation is capable of grinding 538 pounds per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emissions Limitation and Standards

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, the facilities in the 5100 Beck Drive Building are subject to the requirements of 326 IAC 8-1-6, which requires that the Best Available Control Technology (BACT) be used to control VOC emissions. BACT for this facility shall be satisfied by the requirements of 40 CFR Part 63, Subpart WWWW (Reinforced Plastic Composites Reduction) specified in Condition D.2.2.

D.2.2 Reinforced Plastic Composites Production [40 CFR Part 63, Subpart WWWW] [326 IAC 20]

Pursuant to the 40 CFR Part 63, Subpart WWWW, the source shall:

(a) Use mixer covers with no visible gaps present in the mixer covers, except that gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation;

(b) Close any mixer vents when actual mixing is occurring, except that venting is allowed during addition of materials, or as necessary prior to adding materials or opening the cover for safety; and

(c) Keep the mixer covers closed while actual mixing is occurring except when adding materials or changing covers to the mixing vessels. Containers of 5 gallons or less may be open when active mixing is taking place, or during periods when they are in process (i.e., they are actively being used to apply resin). For polymer casting mixing operations, containers with a surface area of 500 square inches or less may be open while active mixing is taking place.

D.2.3 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the sawing and sanding operation S1 shall not exceed the 3.55 pounds per hour when operating at a process rate of 0.81 tons per hour. The pounds per hour limitation was calculated using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.2.4 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.2.5 Testing Requirements [326 IAC 3-2.1]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance.

D.2.6 Particulate Control

In order to comply with Condition D.2.3, the dust collector DC-1 for particulate control shall be in operation and control emissions at all times when the sawing and sanding operations are in operation.

Compliance Monitoring Requirements

D.2.7 Visible Emissions Notations

(a) Visible emission notations of the 5100 Beck Drive Building facilities' stack exhaust shall be performed once per shift when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.2.8 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the sanding and sawing operation at least once per shift when the sanding and sawing operation is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.2.9 Baghouse Inspections

An inspection shall be performed within the last month of each calendar quarter of all bags controlling the sanding and sawing operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.2.10 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency

and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements

D.2.11 Record Keeping Requirements

(a) To document compliance with Condition D.2.7, the Permittee shall maintain records of once per shift visible emission notations of the sanding operations' stack exhaust when venting to the atmosphere.

(b) To document compliance with Condition D.2.8, the Permittee shall maintain records once per shift of the total static pressure drop during normal operation when venting to the atmosphere.

(c) To document compliance with Condition D.2.9, the Permittee shall maintain records of the results of the inspections required under Condition D.2.11 and the dates the vents are redirected.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description:

Protecta Drive Plant:

(m) One (1) mold booth, designated as #1, with a maximum throughout of 0.125 units per hour, consisting of gel coat and resin application, controlled by dry filters for particulate matter over spray and exhausts to one (1) stack designated as SV-001.

(n) One (1) glue line for polycarbonate skylights, with a maximum throughput of 37.7 units per hour and exhausts to the atmosphere.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emissions Limitation and Standards

D.3.1 Volatile Organic Compounds (VOC) and HAP [326 IAC 2-4.1][326 IAC 8-1-6]

Use of resins and gel coats at the Protecta Drive Plant shall be limited such that the potential to emit (PTE) of VOC and total Hazardous Air Pollutants (HAP) from this operation shall be less than 25 tons per twelve (12) consecutive month period, and such that the PTE of any individual HAP shall be less than 10 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month. These limits are needed so that the requirements of 326 IAC 2-4.1 (New Source Toxics Control) and 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) do not apply. Compliance with these limits shall be determined based upon the following criteria:

(a) Monthly usage by weight, weight percent monomer content that is HAP, method of application, and other emission reduction techniques for each gel coat and resin shall be recorded. Volatile organic HAP emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the monomer content, method of application, and other emission reduction techniques for each gel coat and resin, and summing the emissions for all gel coats and resins. Emission factors shall be obtained from the reference approved by IDEM, OAQ.

(b) Until such time that new emissions information is made available by U.S. EPA in its AP-42 document or other U.S. EPA-approved form, emission factors shall be taken from the following reference approved by IDEM, OAQ: "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, July 2001, with the exception of the emission factors for controlled spray application. For operations not addressed by this reference, emission factors shall be taken from U.S. EPA's AP-42 document. For the purposes of these emission calculations, HAP monomer in resins and gel coats that is not styrene or methyl methacrylate shall be considered as styrene on an equivalent weight basis.

D.3.2 Particulate Matter (PM) [40 CFR 52 Subpart P]

Pursuant to 40 CFR 52 Subpart P, the particulate matter emissions from the fiberglass operations shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.3.3 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from the Protecta Drive plant facilities shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Monitoring Requirements

D.3.5 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the particulate emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements

D.3.6 Record Keeping Requirements

(a) To document compliance with Condition D.3.1, the Permittee shall maintain records that are complete and sufficient to establish compliance with the VOC and HAP emission limits. Records maintained shall be taken monthly. Examples of such records include but are not limited to:

(1) The usage by weight and monomer content of each resin and gel coat used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS), manufacturer's certified product data sheets, and calculations necessary to verify the type, amount used, and HAP content of each resin or gel coat;

(2) Method of application and other emission reduction techniques for each resin and gel coat used;

(3) Monthly calculations demonstrating compliance on an equivalent emissions mass basis if non-compliant resins or gel coats are used during that month.

(b) To document compliance with Conditions D.3.5, the Permittee shall maintain a log of monthly overspray observations, daily inspections of the filters, and those additional inspections prescribed by the Preventive Maintenance Plan.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.7 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.3.1 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Alpha Systems, Inc.
Source Address: 5100 and 5120 Beck Drive; 21680 Protecta Drive, Elkhart, Indiana 46516
Mailing Address: 5120 Beck Drive, Elkhart, Indiana 46516
Part 70 Permit No.: T039-12831-00504
Facility: 5120 Beck Drive Building
Parameter: VOC input to Mix Tanks M-1 through M-3
Limit: 1,664 tons per 12 consecutive month period

YEAR: _____

Month	This Month	12 Month Total
Month 1		
Month 2		
Month 3		

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted By: _____

Signature: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Alpha Systems, Inc.
Source Address: 5100 and 5120 Beck Drive; 21680 Protecta Drive, Elkhart, Indiana 46516
Mailing Address: 5120 Beck Drive, Elkhart, Indiana 46516
Part 70 Permit No.: T039-12831-00504
Facility: Protecta Drive Plant
Parameter: VOC and HAP emissions from resins and gelcoats
Limit: 25 tons total VOC and HAP, and 10 tons of any single HAP per 12 consecutive month period

YEAR: _____

Month	This Month			12 Month Total		
	VOC	Total HAP	Single HAP	VOC	Total HAP	Single HAP
Month 1						
Month 2						
Month 3						

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted By: _____

Signature: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

April 23, 2003

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document (TSD)
for a Significant Source Modification and a
Significant Permit Modification to a Part 70 Operating Permit

Source Background and Description

Source Name:	Alpha Systems, Inc.
Source Location:	5100 Beck Drive and 21680 Protecta Drive, Elkhart, Indiana 46516
County:	Elkhart
SIC Code:	2891
Operation Permit No.:	039-12831-00504
Operation Permit Issuance Date:	March 22, 2002
Significant Source Modification No.:	039-16042-00504
Significant Permit Modification No.:	039-16284-00504
Permit Reviewer:	ERG/MP

On January 16, 2003, the Office of Air Quality (OAQ) had a notice published in the Elkhart Truth, Elkhart, Indiana, stating that Alpha Systems, Inc., had applied for a Significant Source Modification and a Significant Permit Modification to a Part 70 Operating Permit to operate two new mixers and two new sanders. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On January 31, 2003, Alpha Systems, Inc., submitted comments on the proposed Significant Source Modification and a Significant Permit Modification. The summary of the comments is as follows:

Comment 1:

Section A.3(b) and the Section D.1 descriptive information (b) indicates an increased maximum capacity of 400 gallons for the existing mixing tank designated as M-2. The current permitted capacity of this mix tank is 400 gallons. The capacity of this existing mix tank will not be increased. No increase in this unit's maximum capacity is requested. Please revise the draft language as follows: One (1) existing mix tank, used in the solvent-based adhesive production area, designated as M-2, maximum capacity of 400 gallons, with filling, dispersion, and cleanup operations venting to stack V1.

Response to Comment 1:

The phrase "increased maximum capacity" was contained in the existing permit prior to this modification. The word "increased" has been removed from the permit as follows:

A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]
[326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(b) One (1) existing mix tank, used in the solvent-based adhesive production area, designated as M-2, ~~increased~~ maximum capacity of 400 gallons, with filling, dispersion, and cleanup operations all venting to stack V1.

SECTION D.1 FACILITY OPERATION CONDITIONS

Description [326 IAC 2-7-5(15)]:

5120 Beck Drive Building

(a) One (1) existing mix tank, used in the solvent-based adhesives production area, designated as M-1, maximum capacity of 500 gallons, with filling, dispersion, and cleanup operations all venting to stack V1.

(b) One (1) existing mix tank, used in the solvent-based adhesive production area, designated as M-2, ~~increased~~ maximum capacity of 400 gallons, with filling, dispersion, and cleanup operations all venting to stack V1.

(c) One (1) mix tank, used in the solvent-based adhesive production area, designated as M-3, with a maximum capacity of 300 gallons, with filling, dispersion, and cleanup operations all venting to stack V1.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Comment 2:

Condition D.1.1(b) establishes a maximum individual HAP content of any coating at 36% to limit the potential to emit total HAPs from the three (3) mix tanks designated as M-1 through M-3 to less than 25 tons per year, and each individual HAP to less than 10 tons per year. Based on the 1,664 tons per consecutive twelve (12) period input of VOC and Hap limit established in Condition D.1.1(a) and AP-42, Chapter 6.4, Table 6.4-1, a maximum individual HAP content limit of 40% will limit the potential to emit total HAPs from these mix tanks to less than 25 tons (24.96) per year, and will limit the potential to emit each individual HAP to less than 10 tons (9.984) per year. Please revise Condition D.1.1(b) to state that the maximum individual HAP content of any coating shall not exceed forty percent (40%).

Response to Comment 2:

The permit has been revised as follows:

D.1.1 VOC Limit [326 IAC 8-1-6] and Hazardous Air Pollutant (HAP) Limit [326 IAC 2-4.1]

(b) The maximum individual HAP content of any coating shall not exceed ~~thirty-six~~ **forty** percent (~~36~~**40**%), which will limit the potential to emit VOC and total HAPs from the three (3) mix tanks designated as M-1 through M-3 to less than 25 tons per year, and will limit the potential to emit each individual HAP to less than 10 tons per year. These limits are based on the AP-42 emission factor of 30 pounds of VOC per ton produced (AP-42, Chapter 6.4, Table 6.4-1). Therefore, the requirements of 326 IAC 2-4.1-1 (New Source toxics control) and 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) do not apply.

Comment 3:

Condition D.2.13(b) requires record keeping documenting compliance with an operator training program required in Condition D.2.3(b). Alpha System's Section D.2 emission equipment is not subject to an operator training program. Condition D.2.3(b) does not contain operator training requirements. Please remove the Section D.2.13(b) requirements from this permit.

Response to Comment 3:

Condition D.2.13(b) has been removed as follows (changes based on Comment 4 and OAQ comments discussed below are also shown):

D.2.**11**~~13~~ Record Keeping Requirements

~~(b) To document compliance with Condition D.2.3(b), the Permittee shall maintain the following training records:~~

~~(1) A copy of the current training program.~~

~~(2) A list of all current personnel, by name, that are required to be trained and the dates they were trained and the date of the most recent refresher training. Records of prior training programs and former personnel are not required to be maintained.~~

(~~c~~**a**) To document compliance with Condition D.2.**7**~~9~~, the Permittee shall maintain records of once per shift visible emission notations of the sanding operations' stack exhaust **when venting to the atmosphere**.

(~~d~~**b**) To document compliance with Condition D.2.**8**~~10~~, the Permittee shall maintain records once per shift of the total static pressure drop during normal operation when venting to the atmosphere.

(~~e~~**c**) To document compliance with Condition D.2.**9**~~11~~, the Permittee shall maintain records of the results of the inspections required under Condition D.2.11 and the dates the vents are redirected.

(~~f~~**d**) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Comment 4:

The identified Condition D.2.13(c) record keeping requirements apply only when the sanding operations are vented to the atmosphere. Please modify Condition D.2.13(c) as follows: To document compliance with Condition D.2.9, the Permittee shall maintain records of once per shift visible emission notations of the sanding operations' stack exhaust when venting to the atmosphere.

Response to Comment 4:

Condition D.2.13(c), which is now Condition D.2.11(a) as described above, has been revised as follows:

D.2.**11**~~13~~ Record Keeping Requirements

(~~c~~**a**) To document compliance with Condition D.2.**7**~~9~~, the Permittee shall maintain records of once per shift visible emission notations of the sanding operations' stack exhaust **when venting to the atmosphere**.

Upon further review, the OAQ has decided to make the following revisions to the permit reporting forms (bolded language has been added, the language with a line through it has been deleted). The Table Of Contents has been modified, if applicable, to reflect these changes.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Alpha Systems, Inc.
Source Address: 5100 and 5120 Beck Drive; 21680 Protecta Drive, Elkhart, Indiana 46516
Mailing Address: 5120 Beck Drive, Elkhart, Indiana 46516
Part 70 Permit No.: T039-12831-00504
Facility: 5120 Beck Drive Building
Parameter: VOC input **to Mix Tanks M-1 through M-3**
Limit: 1,664 tons per 12 consecutive month period

YEAR: _____

Month	~~Column 1~~ This Month	~~Column 1 + Column 2~~ 12 Month Total
Month 1		
Month 2		
Month 3		

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted By: _____

Signature: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Alpha Systems, Inc.
Source Address: 5100 and 5120 Beck Drive; 21680 Protecta Drive, Elkhart, Indiana 46516
Mailing Address: 5120 Beck Drive, Elkhart, Indiana 46516
Part 70 Permit No.: T039-12831-00504
Facility: 5100 Beck Drive Buildings
Parameter: HAP and VOC emissions
Limit: 99 tons of HAP and VOC per 12 consecutive month period

YEAR: _____

Month	Column 1 This Month		Column 1 + Column 2 12 Month Total	
	HAP	**VOC**	**HAP**	**VOC**
Month 1				
Month 2				
Month 3				

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted By: _____

Signature: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Alpha Systems, Inc.
Source Address: 5100 and 5120 Beck Drive; 21680 Protecta Drive, Elkhart, Indiana 46516
Mailing Address: 5120 Beck Drive, Elkhart, Indiana 46516
Part 70 Permit No.: T039-12831-00504
Facility: Protecta Drive Plant
Parameter: VOC and HAP emissions **from resins and gelcoats**
Limit: 25 tons total VOC and HAP, and 10 tons of any single HAP per 12 consecutive month period

YEAR: _____

	~~Column 1~~ This Month			~~Column 1 + Column 2~~ 12 Month Total		
Month	VOC	Total HAP	Single HAP	VOC	Total HAP	Single HAP
Month 1						
Month 2						
Month 3						

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted By: _____

Signature: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Also, the OAQ has decided to make the following revisions to the permit based on recent EPA regulatory actions (bolded language has been added, the language with a line through it has been deleted). The Table Of Contents has been modified, if applicable, to reflect these changes.

OAQ Comment 1:

OAQ has determined that the operations occurring at Alpha System's 5100 Beck Drive Building facility should be referred to as "cast polymer" operations instead of molding operations. In order to reflect this determination, the permit has been changed as follows:

A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

5120 Beck Drive Building

(e) One (1) flat sheet **cast polymer**~~open molding~~ line, identified as FS1 which has a rated capacity of 3,000 lb/hr. This facility is used to manufacture flat strips to match the counter tops in line C1. From this process, the flat strip is conveyed to the sawing and sanding operation, identified as S1 including various already permitted sanders and two (2) flat top sanders designated as FS-1 and FS-2, one (1) two head and one (1) four head spec sheet belt sanders designated as FS-3 and FS-4 for finishing. This operation is capable of processing 3,000 pounds per hour of product.

One (1) 50,000 CFM pulse jet baghouse dust collection system, identified as DC-1 used to control the particulate matter (PM) emissions coming from facility FS1 through FS-4.

(f) One (1) sink/counter top **cast polymer**~~closed molding~~ line, identified as C1 which is capable of molding 34 parts per hour. From this process, the parts can be conveyed to an 0.8 million Btu/hr (MMBTU/hr) natural gas-fired dryer, identified D1 for drying as a final product.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description:

5100 Beck Drive Building

(e) One (1) flat sheet **cast polymer** ~~open molding~~ line, identified as FS1 which has a rated capacity of 3,000 lb/hr. This facility is used to manufacture flat strips to match the counter tops in line C1. From this process, the flat strip is conveyed to the sawing and sanding operation, identified as S1 including various already permitted sanders and two (2) flat top sanders designated as FS-1 and FS-2, one (1) two head and one (1) four head spec sheet belt sanders designated as FS-3 and FS-4 for finishing as a final product. This operation is capable of sawing and sanding 1,614 pounds per hour of product.

One (1) 50,000 CFM pulse jet baghouse dust collection system, identified as DC-1 used to control the particulate matter (PM) emissions coming from facility S1.

(f) One (1) sink/counter top **cast polymer** ~~closed molding~~ line, identified as C1 which is capable of molding 34 parts per hour. From this process, the parts are conveyed to the 0.8 million Btu/hr (MMBTU/hr) natural gas-fired dryer, identified D1 for drying as a final product.

OAQ Comment 2:

Subsequent to this permit going to Public Notice, the final National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reinforced Plastic Composites Production was promulgated. As an existing source, the facility will have three years to comply with this rule. However, the previous PMACT determination is no longer appropriate for the cast polymer operations occurring at Alpha System's 5100 Beck Drive Building facility, and instead, the source will be subject to the following requirements of the NESHAP:

(a) Use mixer covers with no visible gaps present in the mixer covers, except that gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation;

(b) Close any mixer vents when actual mixing is occurring, except that venting is allowed during addition of materials, or as necessary prior to adding materials or opening the cover for safety; and

(c) Keep the mixer covers closed while actual mixing is occurring except when adding materials or changing covers to the mixing vessels. Containers of 5 gallons or less may be open when active mixing is taking place, or during periods when they are in process (i.e., they are actively being used to apply resin). For polymer casting mixing operations, containers with a surface area of 500 square inches or less may be open while active mixing is taking place.

The permit has been changed to reflect this determination as follows:

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, the facilities in the 5100 Beck Drive Building are subject to the requirements of 326 IAC 8-1-6, which requires that the Best Available Control Technology (BACT) be used to control VOC emissions. BACT for this facility shall be satisfied by the requirements of ~~326 IAC 2-4.1-1 (New Source Toxics Control)~~ **40 CFR Part 63, Subpart WWWW (Reinforced Plastic Composites Reduction)** specified in Condition D.2.2.

D.2.2 ~~New Source Toxics Control [326 IAC 2-4.1]~~ **Reinforced Plastic Composites Production [40 CFR Part 63, Subpart WWWW] [326 IAC 20]**

Pursuant to the **40 CFR Part 63, Subpart WWWW,** ~~MACT determination under 326 IAC 2-4.1-1, operating conditions for the 5100 Beck Drive Building shall be the following~~ **the source shall**:

(a) Use mixer covers with no visible gaps present in the mixer covers, except that gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation;

(b) Close any mixer vents when actual mixing is occurring, except that venting is allowed during addition of materials, or as necessary prior to adding materials or opening the cover for safety; and

(c) Keep the mixer covers closed while actual mixing is occurring except when adding materials or changing covers to the mixing vessels. Containers of 5 gallons or less may be open when active mixing is taking place, or during periods when they are in process (i.e., they are actively being used to apply resin). For polymer casting mixing operations, containers with a surface area of 500 square inches or less may be open while active mixing is taking place.

(a) Use of resins and gel coats shall be limited such that the potential to emit (PTE) volatile organic HAP from resins and gel coats only shall be less than 99 tons per twelve (12) consecutive months with compliance determined at the end of each month. Compliance with this limit shall be determined based upon the following criteria:

(1) Monthly usage by weight, weight percent monomer content that is HAP, method of application, and other emission reduction techniques for each gel coat and resin shall be recorded. Volatile organic HAP emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the monomer content, method of application, and other emission reduction techniques for each gel coat and resin, and summing the emissions for all gel coats and resins. Emission factors shall be obtained from the reference approved by IDEM, OAQ.

(2) Until such time that new emissions information is made available by U.S. EPA in its AP-42 document or other U.S. EPA-approved form, emission factors shall be taken from the following reference approved by IDEM, OAQ: "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, April 1999, with the exception of the emission factors for controlled spray

application. For operations not addressed by this reference, emission factors shall be taken from U.S. EPA's AP-42 document. For the purposes of these emission calculations, HAP monomer in resins and gel coats that is not styrene or methyl methacrylate shall be considered as styrene on an equivalent weight basis.

(b) Resins and gel coats used shall be limited to the maximum HAP monomer contents listed in the following table, or their equivalent on an emissions mass basis, depending on the application method and products produced:

Type of Gel Coat or Resin	HAP Monomer Content, % by Weight
Production[1] Gel Coat	37
Tooling[2] Gel Coat	38
Production Resin	35
Tooling Resin	43

[1] Production refers to the manufacture of parts.
[2] Tooling refers to the manufacture of the molds from which parts are manufactured.

Compliance with these HAP monomer content limits shall be demonstrated on a monthly basis. If all of the resins and gel coats used during a month meet the specified HAP monomer content limits, then maintaining records of content and usage as specified under Condition D.2.11 is sufficient for demonstrating compliance with the HAP monomer content limits.

Compliance with the limitations contained in this condition may be demonstrated using monthly emission averaging within each resin or gel coat application category listed in subsection(b) by the use of resins or gel coats with HAP monomer contents lower than the limits specified and/or additional emission reduction techniques approved by IDEM, OAQ.

Examples of emission reduction techniques include, but are not limited to, lower monomer content resins and gel coats, vapor suppression, vacuum bagging, or installing a control device. This is allowed to meet the HAP monomer content limits for resins and gel coats

~~within each category, and shall be calculated on an equivalent emissions mass basis monthly to demonstrate compliance as shown below:~~

~~For Averaging within a category:~~

~~$' Em_A \leq ' (M_R * E_a)$~~

~~Where:~~

~~M_R = Total monthly mass of material within each category~~
~~E_a = Emission factor for each material based on allowable monomer content and allowable application method for each category.~~
~~Em_A = Actual monthly emissions from all materials used within a category based on material specific emission factors, emission reduction techniques and emission controls~~
~~Units: mass = tons~~
~~emission factor = lbs of monomer per ton of resin or gel coat~~
~~emissions = lbs of monomer~~

~~(c) Non-atomized spray application technology shall be used to apply unfilled production resins. Non-atomized spray application technology includes flow coaters, flow choppers, pressure-fed rollers, or other non-spray applications of a design and specifications approved by IDEM, OAM.~~

~~If it is not possible to apply a portion of unfilled resins with non-atomized spray application technology, equivalent emissions reductions must be obtained via use of other emission reduction techniques. Examples of other emission reduction techniques include, but are not limited to, lower HAP monomer content resins and gel coats, closed molding, vapor suppression, vacuum bagging/bonding, or installing a control device.~~

~~(d) Unless specified in subsection (c), gel coat application and mechanical application of resins shall be by any of the following spray technologies:~~

~~(1) Nonatomized application technology.~~

~~(2) Air assisted airless.~~

~~(3) Airless.~~

~~(4) High volume, low pressure (HVLP).~~

~~(5) Equivalent emission reduction technologies to subdivisions (2) through (4).~~

~~(e) Cleaning operations for resin and gel coat application equipment shall meet the following:~~

~~(1) For routine flushing of resin and gel coat application equipment such as spray guns, flow coaters, brushes, rollers, and squeegees, a cleaning solvent shall contain no HAPs. This emission standard does not apply to solvents used for removing cured resin or gel coat from application equipment.~~

(2) A source must store HAP containing solvents used for removing cured resin or gel coat in containers with covers. The covers must have no visible gaps and must be in place at all times, except when equipment is placed in or removed from the container.

(3) Recycled cleaning solvents that contain less than or equal to five percent (5%) HAP by weight are considered to contain no HAP for the purposes of this subsection.

(f) There are no spray application techniques currently in use at the 5100 Beck Drive Building. Any change or modification which involves the use of spray application techniques must receive prior approval from IDEM, OAQ.

(g) The work practice standards required pursuant to 326 IAC 20-25 as specified in Condition D.2.3 shall be followed.

D.2.3 Styrene [326 IAC 2-4.1]

Pursuant to 326 IAC 2-4.1, the following work practice standards shall be implemented:

(a) Non-atomizing spray equipment shall not be operated at pressures that atomize the material during the application process.

(b) Except for mixing containers as described in item (7), HAP containing materials shall be kept in a closed container when not in use.

(c) Solvents sprayed during cleanup and resin changes shall be directed into solvent collection containers.

(d) Solvent collection containers shall be kept closed when not in use.

(e) Clean-up rags with solvent shall be stored in closed containers.

(f) Closed containers shall be used for the storage of the following:

(1) All production and tooling resins that contain HAPs.

(2) All production and tooling gel coats that contain HAPs.

(3) Waste resins and gel coats that contain HAPs.

(4) Cleaning materials, including waste cleaning materials.

(5) Other materials that contain HAPs.

(g) All resin and gel coat mixing containers with a capacity equal to or greater than fifty-five (55) gallons must have a cover with no visible gaps in place at all times except when material is being added to or removed from a container, or when mixing or pumping equipment is being placed in or removed from a container.

D.2.**3**4 Particulate [326 IAC 6-3-2]

D.2.**4**5 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.2.**5**~~6~~ Testing Requirements [326 IAC 3-2.1]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. ~~If testing is required by IDEM, compliance with the volatile organic HAP limit specified in Condition D.2.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.~~

~~D.2.7 Hazardous Air Pollutants (HAP) and Volatile Organic Compounds (VOC)~~

~~Compliance with D.2.1 and the HAP monomer content and usage limitations in Condition D.2.2 shall be determined by one of the following:~~

~~(1) The manufacturer's certified product data sheet.~~

~~(2) The manufacturer's material safety data sheet.~~

~~(3) Sampling and analysis, using any of the following test methods, as applicable:~~

~~(A) 40 CFR 60, Method 24, Appendix A (July 1, 1998)*, shall be used to measure the total volatile HAP and volatile organic compound (VOC) content of resins and gel coats. Method 24 may be modified for measuring the volatile HAP content of resins or gel coats to require that the procedure be performed on uncatalyzed resin or gel coat samples.~~

~~(B) 40 CFR 63, Method 311, Appendix A (July 1, 1998)*, shall be used to measure HAP content in resins and gel coats by direct injection into a gas chromatograph.~~

~~(4) An alternate method approved by IDEM, OAQ.~~

D.2.**6**~~8~~ Particulate Control

In order to comply with Condition D.2.**3**~~4~~, the dust collector DC-1 for particulate control shall be in operation and control emissions at all times when the sawing and sanding operations are in operation.

Compliance Monitoring Requirements

D.2.**7**~~9~~ Visible Emissions Notations

D.2.**8**~~10~~ Parametric Monitoring

D.2.**9**~~11~~ Baghouse Inspections

D.2.**10**~~12~~ Broken or Failed Bag Detection

Record Keeping and Reporting Requirements

D.2.**11**~~13~~ Record Keeping Requirements

~~(a) To document compliance with Condition D.2.2, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the volatile organic compound and volatile HAP emission limits established in Condition D.2.2.~~

~~(1) The usage by weight and monomer content of each resin and gel coat used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS), manufacturer's certified product data sheets, and calculations necessary to verify the type, amount used, VOC and HAP content of each resin or gel coat;~~

~~(2) Method of application and other emission reduction techniques for each resin and gel coat used;~~

~~(3) The calculated total volatile organic HAP emissions from resin and gel coat use for each month.~~

~~(4) Monthly calculations demonstrating compliance on an equivalent emissions mass basis if non-compliant resins or gel coats are used during that month.~~

(**a**~~b~~) To document compliance with Condition D.2.**7**~~9~~, the Permittee shall maintain records of once per shift visible emission notations of the sanding operations' stack exhaust when venting to the atmosphere.

(**b**~~c~~) To document compliance with Condition D.2.**8**~~10~~, the Permittee shall maintain records once per shift of the total static pressure drop during normal operation when venting to the atmosphere.

(**c**~~d~~) To document compliance with Condition D.2.**9**~~11~~, the Permittee shall maintain records of the results of the inspections required under Condition D.2.11 and the dates the vents are redirected.

(**d**~~e~~) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

~~D.2.14 Reporting Requirements~~

~~A quarterly summary of the information to document compliance with Condition D.2.2 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.~~

April 23, 2003

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Source Modification and a Significant Permit Modification

Source Background and Description

Source Name:	Alpha Systems, Inc.
Source Location:	5100 Beck Drive and 21680 Protecta Drive, Elkhart, Indiana 46516
County:	Elkhart
SIC Code:	2891
Operation Permit No.:	039-12831-00504
Operation Permit Issuance Date:	March 22, 2002
Significant Source Modification No.:	039-16042-00504
Significant Permit Modification No.:	039-16284-00504
Permit Reviewer:	ERG/MP

The Office of Air Quality (OAQ) has reviewed a modification application from Alpha Systems, Inc., relating to the construction of the following emission units and pollution control devices (new units in bold):

(e) One (1) flat sheet open molding line, identified as FS1 which has a rated capacity of 3,000 lb/hr. This facility is used to manufacture flat strips to match the counter tops in line C1. From this process, the flat strip is conveyed to the sawing and sanding operation, identified as S1 including various already permitted sanders and two (2) flat top sanders designated as FS-1 **and** FS-2**, one (1) two head and one (1) four head spec sheet belt sander designated as FS-3 and FS-4** for finishing as a final product. This operation is capable of sawing and sanding 1614 pounds per hour of product.

(h) One (1) 300 gallon mix tank, designed as MT-1, with a maximum capacity of 2,500 pounds per hour and exhausting into the building.

(~~h~~**i**) **Three (3)** ~~Two (2)~~ manual mixer**s**, designed as MM-1~~, and~~ MM-2, **and MM-3,** with a maximum capacity of 430 lbs each and exhausts into the building.

History

On September 3, 2002, Alpha Systems, Inc., submitted an application to the OAQ requesting to add one mix tank (MT-1), one manual mixer (MM-3), and one 2-head and one 4-head belt sander. Alpha Systems, Inc., was issued a Part 70 permit on March 22, 2002. The Part 70 permit was administratively amended on September 12, 2002 (039-16257-00504). In addition, the source

requested that the 3 facilities currently permitted in Section D.1 be broken into 3 separate D sections, one for each facility.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification and Significant Permit Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on September 3, 2002. Additional information was received on October 1, 2002.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 and 2).

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	123.4
PM-10	123.4
SO_2	--
VOC	195
CO	--
NO_x	--

HAP's	Potential To Emit (tons/year)
Styrene	195
TOTAL	195

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Significant Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(1) as the new units are subject

to 326 IAC 2-4.1. The Part 70 Significant Permit Modification is being performed pursuant to 326 IAC 2-7-12(d).

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Elkhart County has been classified as attainment or unclassifiable for all pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	7.95
PM-10	8.23
SO_2	0.03
VOC	39.31
CO	4.55
NOx	6.02

(a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

(b) These emissions are based upon the TSD for the Part 70 Permit (T039-12831-00504). (The source is a Part 70 source due to HAP potential to emit.)

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Mix tank and manual mixer				Less than 99			Less than 99
Belt sanders*	15.5 (326 IAC 6-3-2)	15.5					
Total Emissions	15.5	15.5		Less than 99			Less than 99

*The new sanders will be controlled by existing dust collector DC-1, which controls the entire sawing and sanding operation S1. The PTE is for all of S1.

This modification to an existing minor stationary source is not major because the source is still minor. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

State Rule Applicability - Individual Facilities

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

Pursuant to Operation Permit NO. T039-12831-00504, the facilities in the 5100 Beck Drive Building were limited to less than 25 tons of VOC per consecutive twelve (12) month period.

As part of this modification, the source has requested to remove this limit. Therefore, the facilities in the 5100 Beck Drive building are subject to the requirements of 326 IAC 8-1-6, which requires that the Best Available Control Technology (BACT) be used to control VOC emissions. BACT for this source shall be satisfied by the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control).

326 IAC 2-4.1-1 (New Source Toxics Control)

Pursuant to Operation Permit No. T039-12831-00504, the facilities in the 5100 Beck Drive Building were limited to less than 10 tons of a single HAP or twenty-five (25) tons of a combination of HAPs per twelve (12) consecutive month period. As part of this modification, the source has requested to remove this limit. Therefore, pursuant to the MACT determination under 326 IAC 2-4.1-1, operating conditions for the 5100 Beck Drive Building shall be the following:

(a) Use of resins and gel coats shall be limited such that the potential to emit (PTE) volatile organic HAP from resins and gel coats only shall be less than 99 tons per twelve (12) consecutive months. Compliance with this limit shall be determined based upon the following criteria:

(1) Monthly usage by weight, weight percent monomer content that is HAP, method of application, and other emission reduction techniques for each gel coat and resin shall be recorded. Volatile organic HAP emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the monomer content, method of application, and other emission reduction techniques for each gel coat and resin, and summing the emissions for all gel coats and resins. Emission factors shall be obtained from the reference approved by IDEM, OAQ.

(2) Until such time that new emissions information is made available by U.S. EPA in its AP-42 document or other U.S. EPA-approved form, emission factors shall be taken from the following reference approved by IDEM, OAQ: "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, April 1999, with the exception of the emission factors for controlled spray application. For operations not addressed by this reference, emission factors shall be taken from U.S. EPA's AP-42 document. For the purposes of these emission calculations, HAP monomer in resins and gel coats that is not styrene or methyl methacrylate shall be considered as styrene on an equivalent weight basis.

(b) Resins and gel coats used shall be limited to the maximum HAP monomer contents listed in the following table, or their equivalent on an emissions mass basis, depending on the application method and products produced:

Type of Gel Coat or Resin	HAP Monomer Content, % by Weight
Production[1] Gel Coat	37
Tooling[2] Gel Coat	38
Production Resin	35
Tooling Resin	43

[1] Production refers to the manufacture of parts.
[2] Tooling refers to the manufacture of the molds from which parts are manufactured.

Compliance with these HAP monomer content limits shall be demonstrated on a monthly basis. If all of the resins and gel coats used during a month meet the specified HAP monomer content limits, then maintaining records of content and usage is sufficient for demonstrating compliance with the HAP monomer content limits.

Compliance with the limitations contained in this condition may be demonstrated using monthly emission averaging within each resin or gel coat application category listed in subsection(b) by the use of resins or gel coats with HAP monomer contents lower than the limits specified and/or additional emission reduction techniques approved by IDEM, OAQ.

Examples of emission reduction techniques include, but are not limited to, lower monomer content resins and gel coats, vapor suppression, vacuum bagging, or installing a control device. This is allowed to meet the HAP monomer content limits for resins and gel coats within each category, and shall be calculated on an equivalent emissions mass basis monthly to demonstrate compliance as shown below:

For Averaging within a category:

$' Em_A \leq ' (M_R * E_a)$

Where:

M_R = Total monthly mass of material within each category
E_a = Emission factor for each material based on allowable monomer content and allowable application method for each category.
Em_A = Actual monthly emissions from all materials used within a category based on material specific emission factors, emission reduction techniques and emission controls
Units: mass = tons
emission factor = lbs of monomer per ton of resin or gel coat
emissions = lbs of monomer

(c) Non-atomized spray application technology shall be used to apply unfilled production resins. Non-atomized spray application technology includes flow coaters, flow choppers, pressure-fed rollers, or other non-spray applications of a design and specifications approved by IDEM, OAM.

If it is not possible to apply a portion of unfilled resins with non-atomized spray application technology, equivalent emissions reductions must be obtained via use of other emission reduction techniques. Examples of other emission reduction techniques include, but are not limited to, lower HAP monomer content resins and gel coats, closed molding, vapor suppression, vacuum bagging/bonding, or installing a control device.

(d) Unless specified in subsection (c), gel coat application and mechanical application of resins shall be by any of the following spray technologies:

(1) Nonatomized application technology.

(2) Air-assisted airless.

(3) Airless.

(4) High volume, low pressure (HVLP).

(5) Equivalent emission reduction technologies to subdivisions (2) through (4).

(e) Cleaning operations for resin and gel coat application equipment shall meet the following:

(1) For routine flushing of resin and gel coat application equipment such as spray guns, flow coaters, brushes, rollers, and squeegees, a cleaning solvent shall contain no HAPs. This emission standard does not apply to solvents used for removing cured resin or gel coat from application equipment.

(2) A source must store HAP containing solvents used for removing cured resin or gel coat in containers with covers. The covers must have no visible gaps and must be in place at all times, except when equipment is placed in or removed from the container.

(3) Recycled cleaning solvents that contain less than or equal to five percent (5%) HAP by weight are considered to contain no HAP for the purposes of this subsection.

(f) While this facility is not subject to 326 IAC 20-25 (Styrene), the work practice and operator training standards required pursuant to 326 IAC 20-25 shall be followed as part of the MACT determination.

326 IAC 20-25 (Styrene)

The facilities in the Protecta Drive Plant (new Section D.3, previously in D.1) are not subject to 326 IAC 20-25 as they do not manufacture reinforced plastics composites products (only molds), and the facilities in the 5100 Beck Drive Building and 5120 Beck Drive Building are not subject to this rule as they do not manufacture reinforced plastics composites.

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate from the sawing and sanding operation, with a process weight rate of 1,614 pounds per hour, shall not exceed 3.55 lb per hour. This limit was established in the existing Title V permit and is based on the following equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

The correlating dust collectors and dry filters shall be in operation at all times the sawing and sanding operation is in operation, in order to comply with this limit.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this modification are as follows:

(a) The sanding operation has applicable compliance monitoring conditions as specified below:

(1) Visible Emissions Notations

(A) Visible emission notations of the sanding stack exhausts shall be performed once per shift during normal daylight operations when

exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(B) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(C) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(D) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(E) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(2) Parametric Monitoring:

(A) The Permittee shall take readings of the total static pressure drop across the dust collectors and pulse jet baghouse dust collection system, at least once per week. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the dust collectors shall be maintained within the range of 3 to 6 inches of water and the pressure drop across the pulse jet baghouse dust collection system shall be maintained within the range specified by the manufacturer. The Preventive Maintenance Plan for the dust collector should be followed when the pressure reading is outside of this range for any one reading.

(B) An inspection shall be performed each calendar quarter of the dust collectors and pulse jet baghouse dust collection system. Defective dust collectors and/or baghouse components shall be replaced. A record shall be kept of the results of the inspections and the number of dust collectors and/or baghouse components replaced.

(C) In the event that a dust collector and/or baghouse failure has been observed:

(i) The affected compartments will be shut down immediately until the failed units have been repaired or replaced.

(ii) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.

Proposed Changes

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates two (2) plants on Beck Drive which manufacture adhesives, fiberglass counter tops, and sinks, and one (1) plant on Protecta Drive Plant which manufactures fiberglass molds and plastic/vacuum formed items.

Responsible Official:	David V. Smith, Jr.
Source Address:	5100 Beck Drive, Elkhart, Indiana 46516 5120 Beck Drive, Elkhart, Indiana 46516 21680 Protecta Drive, Elkhart, Indiana 46516
Mailing Address:	5120 Beck Drive, Elkhart, Indiana 46516
SIC Code:	2189, 3088
County Location:	Elkhart
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program **Minor** ~~Major~~ Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act

A.2 Part 70 Source Definition [326 IAC 2-7-1(22)]

This adhesive, ~~fiberglass~~ sink and countertop manufacturing operation consists of ~~two~~ **three** (~~2~~**3**) plants:

(a) Beck Drive Plant ~~(two (2) buildings)~~, located at 5120 and 5100 Beck Drive, Elkhart, Indiana 46516; and

(b) Protecta Drive Plant, located at 21680 Protecta Drive, Elkhart, Indiana 46516.

The ~~two~~ **three** (~~2~~**3**) plants are owned by one (1) ~~individual~~ **company**, located on the same property (contiguous **or adjacent** property) ~~and have the same owner~~ but have different SIC codes: The **5120** Beck Drive Plant~~s~~ manufacture**s** adhesives, **the 5100 Beck Drive plant manufactures** ~~fiberglass~~ counter tops, and sinks, used ~~exclusively~~ by the ~~motor home~~ **Recreational Vehicle** industry, with an SIC code of 2891. The Protecta Drive Plant manufactures fiberglass molds and plastic/vacuum formed items, with an SIC code of 3088. This determination was previously made in Minor Permit Revision No. 039-11874-00504 (to MSOP No. 039-11066-00504), issued on March 30, 2000.

A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

5120 Beck Drive Building

(a) One (1) existing mix tank, used in the solvent-based adhesives production area, ~~designed~~ **designated** as M-1, ~~increased~~ maximum capacity ~~to~~ **of** 500 gallons, with filling, dispersion, and cleanup operations all venting to stack V1.

(b) One (1) existing mix tank, used in the solvent-based adhesive production area, ~~designed~~ **designated** as M-2, increased maximum capacity ~~to~~ **of** 400 gallons, with filling, dispersion, and cleanup operations all venting to stack V1.

(c) One (1) mix tank, used in the solvent-based adhesive production area, ~~designed~~ **designated** as M-3, with a maximum capacity ~~to~~ **of** 300 gallons, with filling, dispersion, and cleanup operations all venting to stack V1.

5100 Beck Drive Building

(d) One (1) stone mixer, identified as M1 which has a rated capacity of 2,219 pounds per hour (lb/hr). This mixer can only feed one (1) line at a time, either the flat sheet molding line, FS1 or the sink/counter top molding, C1.

(e) One (1) flat sheet open molding line, identified as FS1 which has a rated capacity of 3,000 lb/hr. This facility is used to manufacture flat strips to match the counter tops in line C1. From this process, the flat strip is conveyed to the sawing and sanding operation, identified as S1 including various already permitted sanders and two (2) flat top sanders designated as FS-1 **and** FS-2**, one (1) two head and one (1) four head spec sheet belt sanders designated as FS-3 and FS-4** for finishing ~~as a final product~~. This operation is capable of ~~sawing and sanding 1614~~ **processing 3,000** pounds per hour of product.

One (1) 50,000 CFM pulse jet baghouse dust collection system, identified as DC-1 used to control the particulate matter (PM) emissions coming from facility **F**S1 **through FS-4**.

(f) One (1) sink/counter top closed molding line, identified as C1 which is capable of molding 34 parts per hour. From this process, the parts ~~are~~ **can be** conveyed to ~~the~~ **an** 0.8 million Btu/hr (MMBTU/hr) natural gas-fired dryer, identified D1 for drying ~~as a final product~~.

(g) One (1) stone mixer, designed as SM-1B, with a maximum capacity of 1500 lbs/hr ~~and exhausts into~~ **venting inside** the building.

(h) One (1) 300 gallon mix tank, designed as MT-1, with a maximum capacity of 2,500 pounds per hour and venting inside the building.

(~~h~~**i**) **Three (3)** ~~Two (2)~~ manual mixer**s**, designed as MM-1**,** ~~and~~ MM-2, **and MM-3,** with a maximum capacity of 430 lbs each and ~~exhausts into~~ **venting inside** the building.

(~~i~~**j**) Miscellaneous use of solvents, waxes, cleaners and other VOC containing materials used to manufacture marble flat sinks and bowls.

(~~j~~**k**) One (1) Empire Blast Cabinet used to **clean maintenance tools** ~~sand blast the marble tops, sinks and flat tops~~, vented to a dust collector designed as DC-2 and then internally.

(~~k~~**l**) Ten (10) hand grinders used for the final finish ~~touch up~~ operations are vented to dust collectors, designated as DC-3 to DC-6 and then internally. This operation is capable of grinding 538 pounds per hour.

Protecta Drive Plant:

(~~l~~**m**) One (1) ~~marble top~~ mold booth, designated as #1, with a maximum throughout of 0.125 units per hour, consisting of gel coat and resin application, controlled by dry filters for particulate matter over spray and exhausts to one (1) stack designated as SV-001.

(~~m~~**n**) One (1) glue line for polycarbonate skylights, with a maximum throughput of 37.7 units per hour and exhausts to the atmosphere.

SECTION D.1 FACILITY OPERATION CONDITIONS

Description [326 IAC 2-7-5(15)]:

5120 Beck Drive Building

(a) One (1) existing mix tank, used in the solvent-based adhesives production area, ~~designed~~ **designated** as M-1, ~~increased~~ maximum capacity ~~to~~ **of** 500 gallons, with filling, dispersion, and cleanup operations all venting to stack V1.

(b) One (1) existing mix tank, used in the solvent-based adhesive production area, ~~designed~~ **designated** as M-2, increased maximum capacity ~~to~~ **of** 400 gallons, with filling, dispersion, and cleanup operations all venting to stack V1.

(c) One (1) mix tank, used in the solvent-based adhesive production area, ~~designed~~ **designated** as M-3, with a maximum capacity ~~to~~ **of** 300 gallons, with filling, dispersion, and cleanup operations all venting to stack V1.

~~(d) One (1) stone mixer, identified as M1 which has a rated capacity of 2,219 pounds per hour (lb/hr). This mixer can only feed one (1) line at a time, either the flat sheet molding line, FS1 or the sink/counter top molding, C1.~~

~~(e) One (1) flat sheet open molding line, identified as FS1 which has a rated capacity of 3,000 lb/hr. This facility is used to manufacture flat strips to match the counter tops in line C1. From this process, the flat strip is conveyed to the sawing and sanding operation, identified as S1 including various already permitted sanders and two (2) flat top sanders designated as FS-1, FS-2, for finishing as a final product. This operation is capable of sawing and sanding 1614 pounds per hour of product.~~

~~One (1) 50,000 CFM pulse jet baghouse dust collection system, identified as DC-1 used to control the particulate matter (PM) emissions coming from facility S1.~~

~~(f) One (1) sink/counter top closed molding line, identified as C1 which is capable of molding 34 parts per hour. From this process, the parts are conveyed to the 0.8 million Btu/hr (MMBTU/hr) natural gas-fired dryer, identified D1 for drying as a final product.~~

~~(g) One (1) stone mixer, designed as SM-1B, with a maximum capacity of 1500 lbs/hr and exhausts into the building.~~

~~(h) Two (2) manual mixer, designed as MM-1, and MM-2, with a maximum capacity of 430 lbs each and exhausts into the building.~~

~~(i) Miscellaneous use of solvents, waxes, cleaners and other VOC containing materials used to manufacture marble flat sinks and bowls.~~

~~(j) One (1) Empire Blast Cabinet used to sand blast the marble tops, sinks and flat tops, vented to a dust collector designed as DC-2 and then internally.~~

~~(k) Ten (10) hand grinders used for the final finish touch up operations are vented to dust collectors, designated as DC-3 to DC-6 and then internally. This operation is capable of grinding 538 pounds per hour.~~

SECTION D.1 FACILITY OPERATION CONDITIONS (Continued)

Facility Description:

~~**Protecta Drive Plant:**~~

~~(l) One (1) marble top mold booth, designated as #1, with a maximum throughout of 0.125 units per hour, consisting of gel coat and resin application, controlled by dry filters for particulate matter over spray and exhausts to one (1) stack designated as SV-001.~~

~~(m) One (1) glue line for polycarbonate skylights, with a maximum throughput of 37.7 units per hour and exhausts to the atmosphere.~~

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 VOC Limit [326 IAC 8-1-6] and Hazardous Air Pollutant (HAP) Limit [326 IAC 2-4.1]

(a) The input of raw VOC and/or HAP containing material to the three (3) mix tanks designated as M-1 through M-3 shall not exceed 1,664 tons per consecutive twelve (12) month period, with compliance demonstrated at the end of each month. Each ton of VOC and/or HAP containing cleanup solvent used at the three (3) mix tanks designated as M-1 through M-3 shall be considered equivalent to 66.7 tons of raw materials input to the coating production process.

(b) The maximum individual HAP content of any coating shall not exceed thirty-six percent (36%), which will limit the potential to emit VOC and total HAPs from the three (3) mix tanks designated as M-1 through M-3 to less than 25 tons per year, and will limit the potential to emit each individual HAP to less than 10 tons per year. These limits are based on the AP-42 emission factor of 30 pounds of VOC per ton produced (AP-42, Chapter 6.4, Table 6.4-1). Therefore, the requirements of 326 IAC 2-4.1-1 (New Source toxics control) and 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) do not apply.

~~D.1.1 Hazardous Air Pollutant (HAP) Limit [326 IAC 2-4.1]~~

~~Pursuant to the Significant Permit Revision 039-12282-00504, (issued December 4, 2000) to MSOP 039-11066-00504, the facilities in the 5120 Beck Drive Building and the 5100 Beck Drive Building (as described above) the input HAP shall be less than 10 tons of a single HAP or twenty-five (25) tons of a combination of HAPs per twelve (12) consecutive month period so that the requirements of 326 IAC 2-4.1 (Toxics) do not apply.~~

~~D.1.2 BACT VOC Limit [326 IAC 8-1-6]~~

~~Pursuant to the Significant Permit Revision 039-12282-00504, (issued December 4, 2000) to MSOP 039-11066-00504, the facilities in the 5120 Beck Drive Building and the 5100 Beck Drive Building, the input VOC shall be less than 25 tons per consecutive twelve (12) month period, so that the requirements of 326 8-1-6 (New Facilities; General Reduction Requirements) do not apply.~~

~~D.1.3 Particulate Matter (PM) [326 IAC 6-3-2]~~

~~Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from~~

~~(a) sawing and sanding with a process weight rate of 1614 pounds per hour shall not exceed 3.55 lb or PM per hour,~~

~~(b) blasting with a process weight rate of 1 pound per hour shall not exceed 0.02 lb of PM per hour,~~

~~(c) flat bed sanders and hand grinders with a process weight rate of 538 pounds per hour shall not exceed 1.7 lb of PM per hour,~~

~~(d) marble top mold booth shall be limited by the following:~~

~~Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:~~

~~$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour~~

~~The correlating 50,000 CFM pulse jet baghouse dust collection system, dust collectors, and dry filters shall be in operation at all times the sawing and sanding, abrasive blasting, flat bed sanders and hand grinders, woodworking and plastics machining, and the marble top mold booth are in operation, in order to comply with this limit.~~

~~D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]~~

~~A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.~~

Compliance Determination Requirements

D.1.5**2** Volatile Organic Compounds (VOC) **and Hazardous Air Pollutants (HAP)**

Compliance with Condition D.1.1 ~~and D.1.2~~ shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound **and HAP-containing material** usage for the twelve (12) consecutive month period.

~~Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]~~

~~D.1.6 Particulate Matter (PM)~~

~~Pursuant to MSOP 039-11066-00504, issued on October 6, 1999, and in order to comply with D.1.3, the corresponding PM control equipment shall be in operation and control emissions from the sawing and sanding, blasting, flat bed sanders and hand grinders, and marble top mold booth at all times when the facilities are in operation.~~

~~D.1.7 Monitoring~~

~~(a) The sawing and sanding operation, blasting, and hand grinding, all controlled by either dust collectors or a pulse jet baghouse dust collection system, have applicable compliance monitoring conditions as specified below:~~

~~(1) Visible Emissions Notations~~

~~(A) Visible emission notations of the blasting stack exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.~~

(B) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(C) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(D) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(E) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(2) Parametric Monitoring:

(A) The Permittee shall take readings of the total static pressure drop across the dust collectors and pulse jet baghouse dust collection system, at least once per week. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the dust collectors shall be maintained within the range of 3 to 6 inches of water and the pressure drop across the pulse jet baghouse dust collection system shall be maintained within the range specified by the manufacturer. The Preventive Maintenance Plan for the dust collector should be followed when the pressure reading is outside of this range for any one reading.

(B) An inspection shall be performed each calendar quarter of the dust collectors and pulse jet baghouse dust collection system. Defective dust collectors and/or baghouse components shall be replaced. A record shall be kept of the results of the inspections and the number of dust collectors and/or baghouse components replaced.

(C) In the event that a dust collector and/or baghouse failure has been observed:

(i) The affected compartments will be shut down immediately until the failed units have been repaired or replaced.

(ii) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.

(b) The spray coating has applicable compliance monitoring conditions as specified below:

(1) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the over spray from the surface coating booth stack SV-001 while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result

~~in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.~~

~~(2) Monthly inspections shall be performed of the coating emissions from the stack and the presence of over spray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in over spray emission, or evidence of over spray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.~~

~~(3) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.~~

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.~~8~~**3** Record Keeping Requirements

(a) To document compliance with Condition~~s~~ D.1.1 ~~and/or D.1.2~~, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC **and HAP** usage limits and/or the VOC **and HAP** emission limits established in Condition D.1.1. ~~and/or D.1.2.~~

(1) The amount and VOC/HAP content of each coating **produced** ~~material~~ and **each** solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

~~(2) A log of the dates of use;~~

(~~3~~**2**) The volume weighted VOC/HAP content of the coatings **produced** ~~used~~ for each month;

(~~4~~**3**) The cleanup solvent usage for each ~~day~~ month;

(~~5~~**4**) The total VOC/HAP **input** ~~usage~~ for each month; and

(~~6~~**5**) The weight of VOCs/HAPs emitted **at the three (3) mixing tanks** for each compliance period.

~~(b) To document compliance with Condition D.1.7(a), the Permittee shall maintain a log of weekly readings and quarterly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.~~

~~(c) To document compliance with Condition D.1.7(b), the Permittee shall maintain a log of weekly over spray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.~~

(~~d~~**b**) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.~~9~~**4** Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1~~ and D.1.2~~ shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description:

5100 Beck Drive Building

(d) One (1) stone mixer, identified as M1 which has a rated capacity of 2,219 pounds per hour (lb/hr). This mixer can only feed one (1) line at a time, either the flat sheet molding line, FS1 or the sink/counter top molding, C1.

(e) One (1) flat sheet open molding line, identified as FS1 which has a rated capacity of 3,000 lb/hr. This facility is used to manufacture flat strips to match the counter tops in line C1. From this process, the flat strip is conveyed to the sawing and sanding operation, identified as S1 including various already permitted sanders and two (2) flat top sanders designated as FS-1 **and** FS-2**, one (1) two head and one (1) four head spec sheet belt sanders designated as FS-3 and FS-4** for finishing as a final product. This operation is capable of sawing and sanding 1,614 pounds per hour of product.

One (1) 50,000 CFM pulse jet baghouse dust collection system, identified as DC-1 used to control the particulate matter (PM) emissions coming from facility S1.

(f) One (1) sink/counter top closed molding line, identified as C1 which is capable of molding 34 parts per hour. From this process, the parts are conveyed to the 0.8 million Btu/hr (MMBTU/hr) natural gas-fired dryer, identified D1 for drying as a final product.

(g) One (1) stone mixer, designed as SM-1B, with a maximum capacity of 1500 lbs/hr and exhausts into the building.

(h) One (1) 300 gallon mix tank, designed as MT-1, with a maximum capacity of 2,500 pounds per hour and exhausting into the building.

(~~h~~**i**) **Three (3)** ~~Two (2)~~ manual mixer**s**, designed as MM-1~~, and~~ MM-2, **and MM-3,** with a maximum capacity of 430 lbs each and exhausts into the building.

(~~i~~**j**) Miscellaneous use of solvents, waxes, cleaners and other VOC containing materials used to manufacture marble flat sinks and bowls.

(~~j~~**k**) One (1) Empire Blast Cabinet used to sand blast the marble tops, sinks and flat tops, vented to a dust collector designed as DC-2 and then internally.

(~~k~~**l**) Ten (10) hand grinders used for the final finish touch up operations are vented to dust collectors, designated as DC-3 to DC-6 and then internally. This operation is capable of grinding 538 pounds per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emissions Limitation and Standards

D.2.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6, the facilities in the 5100 Beck Drive Building are subject to the requirements of 326 IAC 8-1-6, which requires that the Best Available Control Technology

(BACT) be used to control VOC emissions. BACT for this facility shall be satisfied by the requirements of 326 IAC 2-4.1-1 (New Source Toxics Control) specified in Condition D.2.2.

D.2.2 New Source Toxics Control [326 IAC 2-4.1]

Pursuant to the MACT determination under 326 IAC 2-4.1-1, operating conditions for the 5100 Beck Drive Building shall be the following:

(a) Use of resins and gel coats shall be limited such that the potential to emit (PTE) volatile organic HAP from resins and gel coats only shall be less than 99 tons per twelve (12) consecutive months with compliance determined at the end of each month. Compliance with this limit shall be determined based upon the following criteria:

(1) Monthly usage by weight, weight percent monomer content that is HAP, method of application, and other emission reduction techniques for each gel coat and resin shall be recorded. Volatile organic HAP emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the monomer content, method of application, and other emission reduction techniques for each gel coat and resin, and summing the emissions for all gel coats and resins. Emission factors shall be obtained from the reference approved by IDEM, OAQ.

(2) Until such time that new emissions information is made available by U.S. EPA in its AP-42 document or other U.S. EPA-approved form, emission factors shall be taken from the following reference approved by IDEM, OAQ: "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, April 1999, with the exception of the emission factors for controlled spray

application. For operations not addressed by this reference, emission factors shall be taken from U.S. EPA's AP-42 document. For the purposes of these emission calculations, HAP monomer in resins and gel coats that is not styrene or methyl methacrylate shall be considered as styrene on an equivalent weight basis.

(b) Resins and gel coats used shall be limited to the maximum HAP monomer contents listed in the following table, or their equivalent on an emissions mass basis, depending on the application method and products produced:

Type of Gel Coat or Resin	HAP Monomer Content, % by Weight
Production[1] Gel Coat	37
Tooling[2] Gel Coat	38
Production Resin	35
Tooling Resin	43

[1] Production refers to the manufacture of parts.
[2] Tooling refers to the manufacture of the molds from which parts are manufactured.

Compliance with these HAP monomer content limits shall be demonstrated on a monthly basis. If all of the resins and gel coats used during a month meet the specified HAP monomer content limits, then maintaining records of content and

usage as specified under Condition D.2.11 is sufficient for demonstrating compliance with the HAP monomer content limits.

Compliance with the limitations contained in this condition may be demonstrated using monthly emission averaging within each resin or gel coat application category listed in subsection(b) by the use of resins or gel coats with HAP monomer contents lower than the limits specified and/or additional emission reduction techniques approved by IDEM, OAQ.

Examples of emission reduction techniques include, but are not limited to, lower monomer content resins and gel coats, vapor suppression, vacuum bagging, or installing a control device. This is allowed to meet the HAP monomer content limits for resins and gel coats within each category, and shall be calculated on an equivalent emissions mass basis monthly to demonstrate compliance as shown below:

For Averaging within a category:

$$\sum Em_A \leq \sum (M_R * E_a)$$

Where:

M_R = Total monthly mass of material within each category

E_a = Emission factor for each material based on allowable monomer content and allowable application method for each category.

Em_A = Actual monthly emissions from all materials used within a category based on material specific emission factors, emission reduction techniques and emission controls

Units: mass = tons
emission factor = lbs of monomer per ton of resin or gel coat
emissions = lbs of monomer

(c) **Non-atomized spray application technology shall be used to apply unfilled production resins. Non-atomized spray application technology includes flow coaters, flow choppers, pressure-fed rollers, or other non-spray applications of a design and specifications approved by IDEM, OAM.**

If it is not possible to apply a portion of unfilled resins with non-atomized spray application technology, equivalent emissions reductions must be obtained via use of other emission reduction techniques. Examples of other emission reduction techniques include, but are not limited to, lower HAP monomer content resins and gel coats, closed molding, vapor suppression, vacuum bagging/bonding, or installing a control device.

(d) **Unless specified in subsection (c), gel coat application and mechanical application of resins shall be by any of the following spray technologies:**

(1) **Nonatomized application technology.**

(2) **Air-assisted airless.**

(3) **Airless.**

(4) High volume, low pressure (HVLP).

(5) Equivalent emission reduction technologies to subdivisions (2) through (4).

(e) Cleaning operations for resin and gel coat application equipment shall meet the following:

(1) For routine flushing of resin and gel coat application equipment such as spray guns, flow coaters, brushes, rollers, and squeegees, a cleaning solvent shall contain no HAPs. This emission standard does not apply to solvents used for removing cured resin or gel coat from application equipment.

(2) A source must store HAP containing solvents used for removing cured resin or gel coat in containers with covers. The covers must have no visible gaps and must be in place at all times, except when equipment is placed in or removed from the container.

(3) Recycled cleaning solvents that contain less than or equal to five percent (5%) HAP by weight are considered to contain no HAP for the purposes of this subsection.

(f) There are no spray application techniques currently in use at the 5100 Beck Drive Building. Any change or modification which involves the use of spray application techniques must receive prior approval from IDEM, OAQ.

(g) The work practice standards required pursuant to 326 IAC 20-25 as specified in Condition D.2.3 shall be followed.

D.2.3 Styrene [326 IAC 2-4.1]

Pursuant to 326 IAC 2-4.1, the following work practice standards shall be implemented:

(a) Non-atomizing spray equipment shall not be operated at pressures that atomize the material during the application process.

(b) Except for mixing containers as described in item (7), HAP containing materials shall be kept in a closed container when not in use.

(c) Solvents sprayed during cleanup and resin changes shall be directed into solvent collection containers.

(d) Solvent collection containers shall be kept closed when not in use.

(e) Clean-up rags with solvent shall be stored in closed containers.

(f) Closed containers shall be used for the storage of the following:

(1) All production and tooling resins that contain HAPs.

(2) All production and tooling gel coats that contain HAPs.

(3) Waste resins and gel coats that contain HAPs.

(4) Cleaning materials, including waste cleaning materials.

(5) Other materials that contain HAPs.

(g) All resin and gel coat mixing containers with a capacity equal to or greater than fifty-five (55) gallons must have a cover with no visible gaps in place at all times except when material is being added to or removed from a container, or when mixing or pumping equipment is being placed in or removed from a container.

D.2.4 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the sawing and sanding operation S1 shall not exceed the 3.55 pounds per hour when operating at a process rate of 0.81 tons per hour. The pounds per hour limitation was calculated using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

D.2.5 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.2.6 Testing Requirements [326 IAC 3-2.1]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the volatile organic HAP limit specified in Condition D.2.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.2.7 Hazardous Air Pollutants (HAP) and Volatile Organic Compounds (VOC)

Compliance with D.2.1 and the HAP monomer content and usage limitations in Condition D.2.2 shall be determined by one of the following:

(1) The manufacturer's certified product data sheet.

(2) The manufacturer's material safety data sheet.

(3) Sampling and analysis, using any of the following test methods, as applicable:

(A) 40 CFR 60, Method 24, Appendix A (July 1, 1998)*, shall be used to measure the total volatile HAP and volatile organic compound (VOC) content of resins and gel coats. Method 24 may be modified for measuring the volatile HAP content of resins or gel coats to require that the procedure be performed on uncatalyzed resin or gel coat samples.

(B) 40 CFR 63, Method 311, Appendix A (July 1, 1998)*, shall be used to measure HAP content in resins and gel coats by direct injection into a gas chromatograph.

(4) An alternate method approved by IDEM, OAQ.

D.2.8 Particulate Control

In order to comply with Condition D.2.4, the dust collector DC-1 for particulate control shall be in operation and control emissions at all times when the sawing and sanding operations are in operation.

Compliance Monitoring Requirements

D.2.9 Visible Emissions Notations

(a) Visible emission notations of the 5100 Beck Drive Building facilities' stack exhaust shall be performed once per shift when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.2.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the sanding and sawing operation at least once per shift when the sanding and sawing operation is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.2.11 Baghouse Inspections

An inspection shall be performed within the last month of each calendar quarter of all bags controlling the sanding and sawing operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.2.12 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements

D.2.13 Record Keeping Requirements

(a) To document compliance with Condition D.2.2, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the volatile organic compound and volatile HAP emission limits established in Condition D.2.2.

(1) The usage by weight and monomer content of each resin and gel coat used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS), manufacturer's certified product data sheets, and calculations necessary to verify the type, amount used, VOC and HAP content of each resin or gel coat;

(2) Method of application and other emission reduction techniques for each resin and gel coat used;

(3) The calculated total volatile organic HAP emissions from resin and gel coat use for each month.

(4) Monthly calculations demonstrating compliance on an equivalent emissions mass basis if non-compliant resins or gel coats are used during that month.

(b) To document compliance with Condition D.2.3(b), the Permittee shall maintain the following training records:

(1) A copy of the current training program.

(2) A list of all current personnel, by name, that are required to be trained and the dates they were trained and the date of the most recent refresher training. Records of prior training programs and former personnel are not required to be maintained.

(c) To document compliance with Condition D.2.9, the Permittee shall maintain records of once per shift visible emission notations of the sanding operations' stack exhaust.

(d) To document compliance with Condition D.2.10, the Permittee shall maintain records once per shift of the total static pressure drop during normal operation when venting to the atmosphere.

(e) To document compliance with Condition D.2.11, the Permittee shall maintain records of the results of the inspections required under Condition D.2.11 and the dates the vents are redirected.

(f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.14 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.2 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description:

Protecta Drive Plant:

(~~l~~**m**) One (1) ~~marble top~~ mold booth, designated as #1, with a maximum throughout of 0.125 units per hour, consisting of gel coat and resin application, controlled by dry filters for particulate matter over spray and exhausts to one (1) stack designated as SV-001.

(~~m~~**n**) One (1) glue line for polycarbonate skylights, with a maximum throughput of 37.7 units per hour and exhausts to the atmosphere.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emissions Limitation and Standards

D.3.1 Volatile Organic Compounds (VOC) and HAP [326 IAC 2-4.1][326 IAC 8-1-6]

Use of resins and gel coats at the Protecta Drive Plant shall be limited such that the potential to emit (PTE) of VOC and total Hazardous Air Pollutants (HAP) from this operation shall be less than 25 tons per twelve (12) consecutive month period, and such that the PTE of any individual HAP shall be less than 10 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month. These limits are needed so that the requirements of 326 IAC 2-4.1 (New Source Toxics Control) and 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) do not apply. Compliance with these limits shall be determined based upon the following criteria:

(a) Monthly usage by weight, weight percent monomer content that is HAP, method of application, and other emission reduction techniques for each gel coat and resin shall be recorded. Volatile organic HAP emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the monomer content, method of application, and other emission reduction techniques for each gel coat and resin, and summing the emissions for all gel coats and resins. Emission factors shall be obtained from the reference approved by IDEM, OAQ.

(b) Until such time that new emissions information is made available by U.S. EPA in its AP-42 document or other U.S. EPA-approved form, emission factors shall be taken from the following reference approved by IDEM, OAQ: "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, July 2001, with the exception of the emission factors for controlled spray application. For operations not addressed by this reference, emission factors shall be taken from U.S. EPA's AP-42 document. For the purposes of these emission calculations, HAP monomer in resins and gel coats that is not styrene or methyl methacrylate shall be considered as styrene on an equivalent weight basis.

D.3.2 Particulate Matter (PM) [40 CFR 52 Subpart P]

Pursuant to 40 CFR 52 Subpart P, the particulate matter emissions from the fiberglass operations shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ **where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour**

D.3.3 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from the Protecta Drive plant facilities shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Monitoring Requirements

D.3.5 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the particulate emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements

D.3.6 Record Keeping Requirements

(a) To document compliance with Condition D.3.1, the Permittee shall maintain records that are complete and sufficient to establish compliance with the VOC and HAP emission limits. Records maintained shall be taken monthly. Examples of such records include but are not limited to:

(1) The usage by weight and monomer content of each resin and gel coat used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS), manufacturer's certified product data sheets, and calculations necessary to verify the type, amount used, and HAP content of each resin or gel coat;

(2) Method of application and other emission reduction techniques for each resin and gel coat used;

(3) Monthly calculations demonstrating compliance on an equivalent emissions mass basis if non-compliant resins or gel coats are used during that month.

(b) To document compliance with Condition D.3.5, the Permittee shall maintain a log of monthly overspray observations, daily inspections of the filters, and those additional inspections prescribed by the Preventive Maintenance Plan.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.12 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.3.1 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Alpha Systems, Inc.
Source Address: 5100 and 5120 Beck Drive; 21680 Protecta Drive, Elkhart, Indiana 46516
Mailing Address: 5120 Beck Drive, Elkhart, Indiana 46516
Part 70 Permit No.: T039-12831-00504
Facility: 5120 Beck Drive ~~and 5100 Beck Drive~~ Building~~s~~
Parameter: VOC input
Limit: ~~25~~ **1,664** tons per 12 consecutive month period

YEAR: _____

Month	Column 1 This Month	~~Column 2~~ ~~Previous 11 Months~~	Column 1 + Column 2 12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted By: _____

Signature: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Alpha Systems, Inc.
Source Address: 5100 and 5120 Beck Drive; 21680 Protecta Drive, Elkhart, Indiana 46516
Mailing Address: 5120 Beck Drive, Elkhart, Indiana 46516
Part 70 Permit No.: T039-12831-00504
Facility: ~~5120 Beck Drive and~~ 5100 Beck Drive Building~~s~~
Parameter: HAP ~~input~~ **and VOC emissions**
Limit: **99** ~~10~~ tons of ~~a single~~ HAP **and VOC** ~~or 25 tons of a combination of HAPs~~ per 12 consecutive month period

YEAR: _____

Month	Column 1 This Month		~~Column 2 Previous 11 Months~~	Column 1 + Column 2 12 Month Total	
	HAP	**VOC**		**HAP**	**VOC**
Month 1					
Month 2					
Month 3					

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted By: _____

Signature: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Alpha Systems, Inc.
Source Address: 5100 and 5120 Beck Drive; 21680 Protecta Drive, Elkhart, Indiana 46516
Mailing Address: 5120 Beck Drive, Elkhart, Indiana 46516
Part 70 Permit No.: T039-12831-00504
Facility: Protecta Drive Plant
Parameter: VOC and HAP emissions
Limit: 25 tons total VOC and HAP, and 10 tons of any single HAP per 12 consecutive month period

YEAR: _____

Month	Column 1 This Month			Column 1 + Column 2 12 Month Total		
	VOC	Total HAP	Single HAP	VOC	Total HAP	Single HAP
Month 1						
Month 2						
Month 3						

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted By: _____

Signature: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 039-16042-00504, and the operation of the new facilities shall be subject to the proposed Part 70 Significant Permit Modification No. 039-16284-00504.

Appendix A: Emissions Calculations
VOC/Styrene Emissions from Open Molding Operations

Company N Alpha Systems, Inc.
Address Cit Elkhart, Indiana
MSM: 039-16042
Plt ID: 00504
Reviewer: ERG/MOP
Date: 10/10/2002

Material	Lbs of Resin (lb/unit)	Units per hour	Maximum Resin Usage (tons/year)	Emission Factor (lb/ton resin)*	Potential VOC/Styrene (tons/yr)
Plastic Composi	1.95	570	4868	80	195

* Emission factor from the April 7, 1999 Unified Emission Factors for Open Molding of Composites.

METHODOLOGY

Potential VOC/Styrene emissions (tons/yr) = (lb resin/unit) * (units per hour) * 8,760 (hr/yr) * (ton/2,000 lb) * EF (lb VOC/ton resin) * (ton/2,000 lb)

Appendix A: Emissions Calculations
PM/PM-10 Emissions from Sanding Operations

Company N **Alpha Systems, Inc.**
Address Cit **Elkhart, Indiana**
MSM: **039-16042**
Plt ID: **00504**
Reviewer: **ERG/MOP**
Date: **10/10/2002**

The proposed belt sanders will be added to the existing sanding/finishing station S-1. These operations are controlled by an existing baghouse.

Amount of material collected	26.76	
Assumed baghouse efficiency	95	
Uncontrolled emissions (tons	123.38	
Amount of material emitted (ll	26.76*(1-0.95)/(1-0.05)	
=	1.34	
Amount of material emitted (t	6.17	